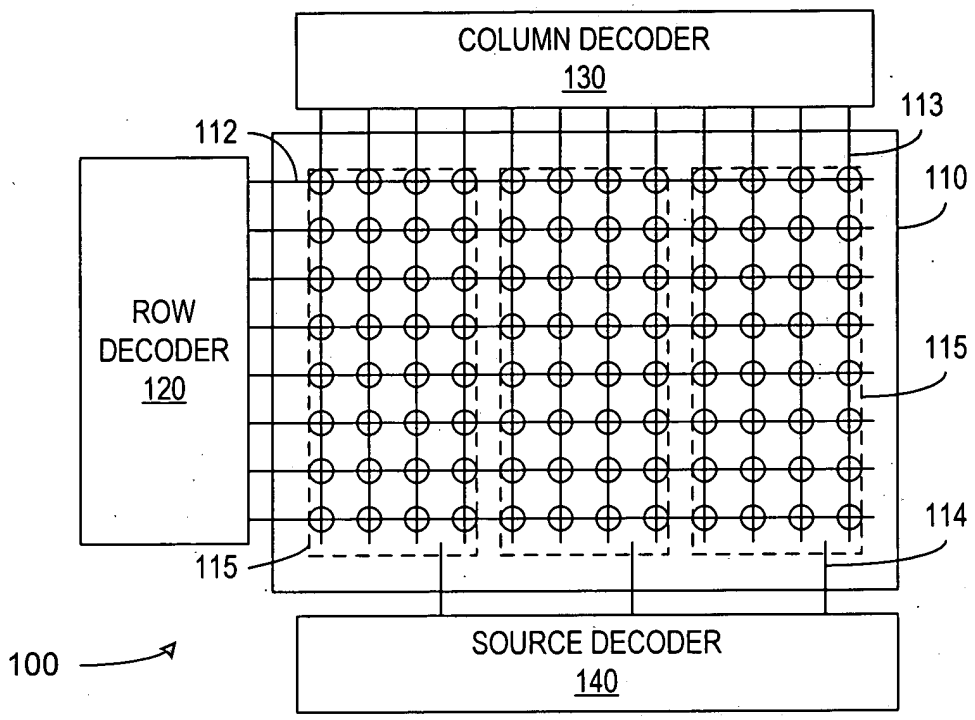


FIG. 1A
(PRIOR ART)

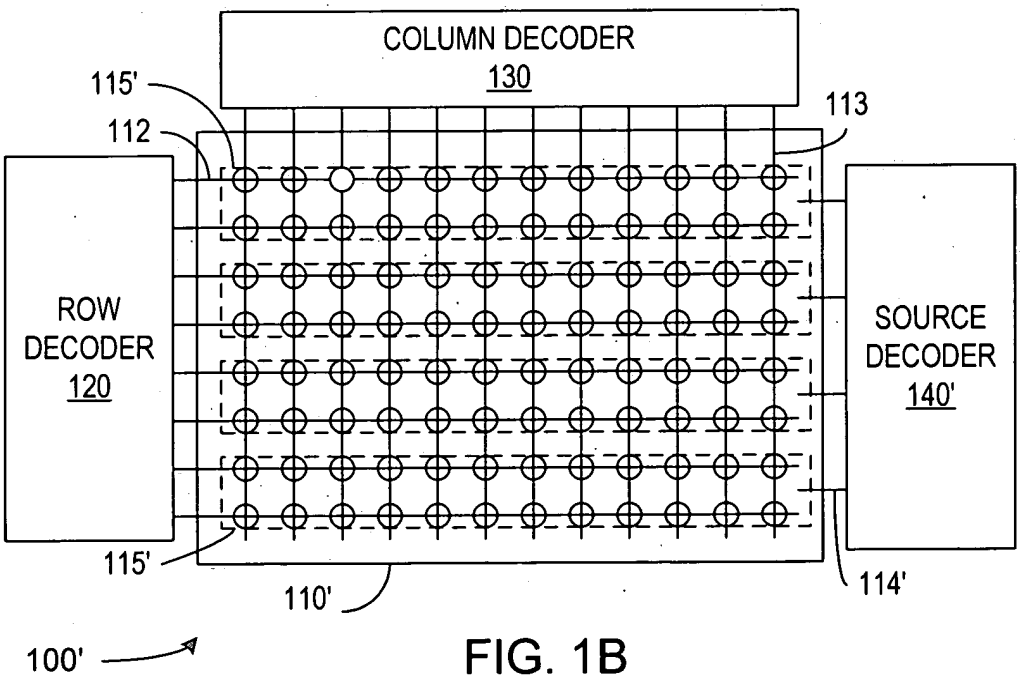


FIG. 1B
(PRIOR ART)

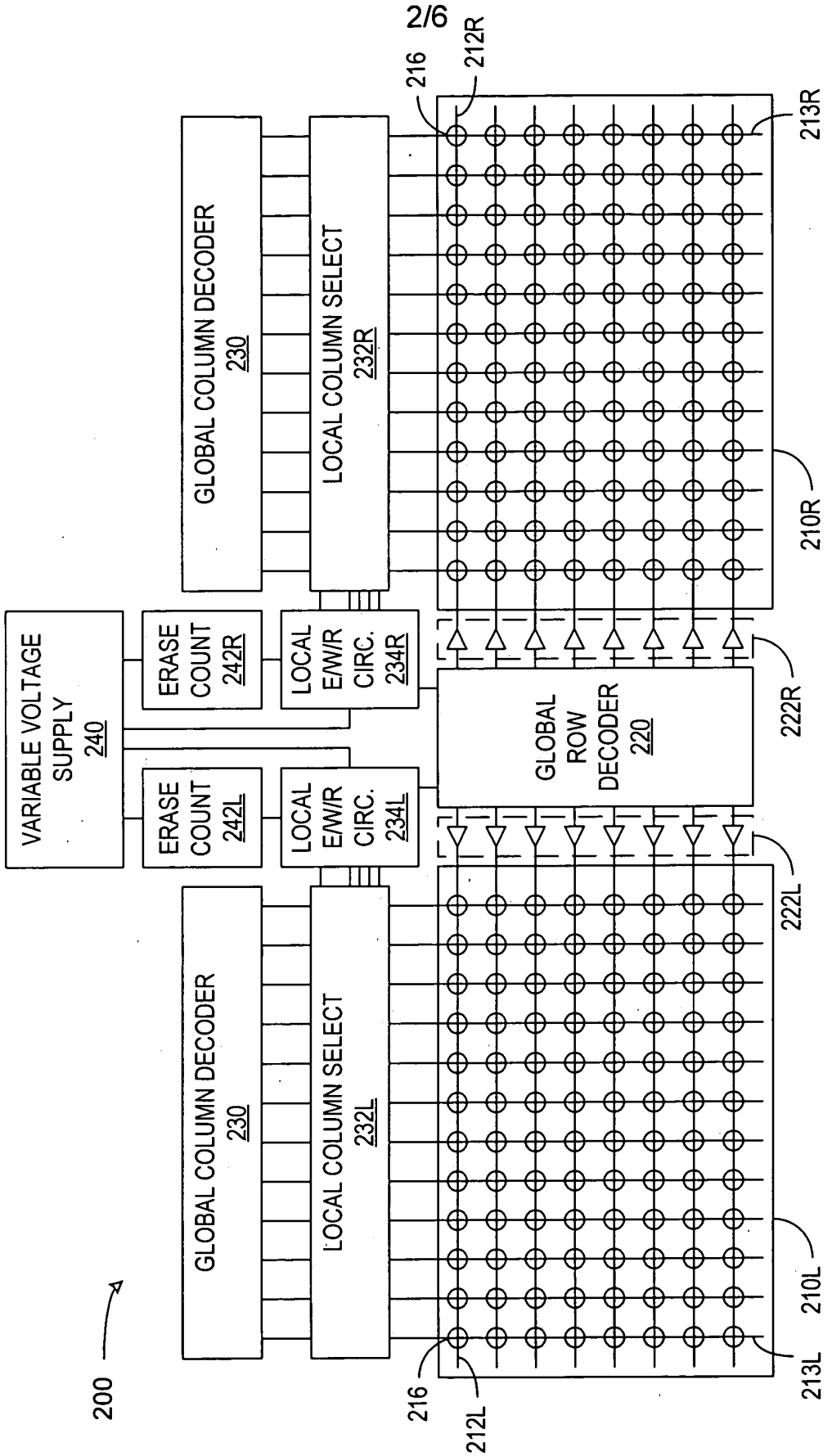
200
216
212R
213R
210R
222R
222L
210L
213L
212L
216
GLOBAL COLUMN DECODER 230
LOCAL COLUMN SELECT 232R
LOCAL COLUMN SELECT 232L
GLOBAL COLUMN DECODER 230
GLOBAL ROW DECODER 220
VARIABLE VOLTAGE SUPPLY 240
ERASE COUNT 242R
LOCAL E/W/R CIRC. 234R
ERASE COUNT 242L
LOCAL E/W/R CIRC. 234L

FIG. 2A

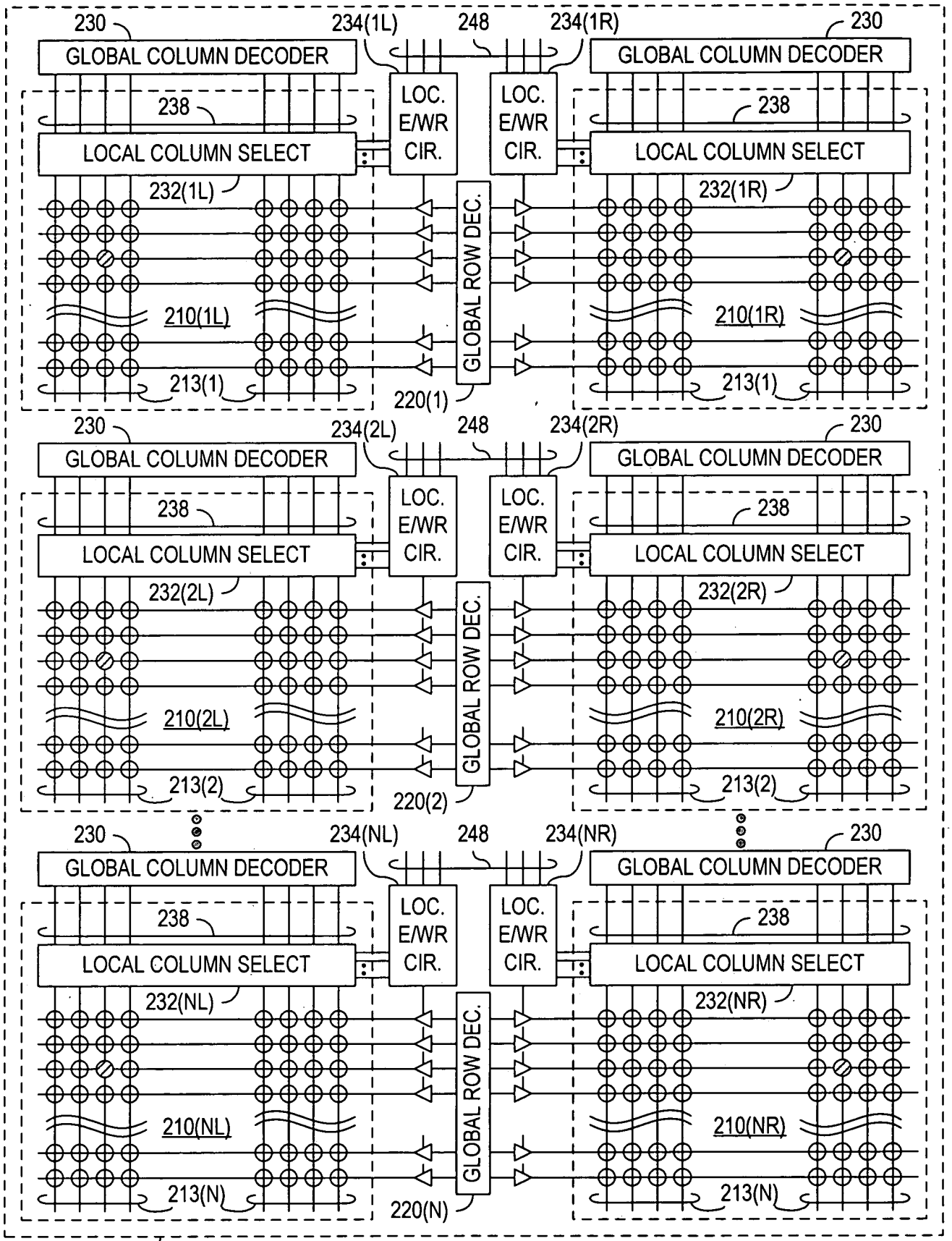
230
234(1L)
248
234(1R)
230
GLOBAL COLUMN DECODER
GLOBAL COLUMN DECODER
LOC. E/WR CIR.
LOC. E/WR CIR.
238
238
LOCAL COLUMN SELECT
LOCAL COLUMN SELECT
232(1L)
232(1R)
GLOBAL ROW DEC.
210(1L)
210(1R)
213(1)
213(1)
220(1)
230
234(2L)
248
234(2R)
230
GLOBAL COLUMN DECODER
GLOBAL COLUMN DECODER
LOC. E/WR CIR.
LOC. E/WR CIR.
238
238
LOCAL COLUMN SELECT
LOCAL COLUMN SELECT
232(2L)
232(2R)
GLOBAL ROW DEC.
210(2L)
210(2R)
213(2)
213(2)
220(2)
230
234(NL)
248
234(NR)
230
GLOBAL COLUMN DECODER
GLOBAL COLUMN DECODER
LOC. E/WR CIR.
LOC. E/WR CIR.
238
238
LOCAL COLUMN SELECT
LOCAL COLUMN SELECT
232(NL)
232(NR)
GLOBAL ROW DEC.
210(NL)
210(NR)
213(N)
213(N)
220(N)
250

FIG. 2B

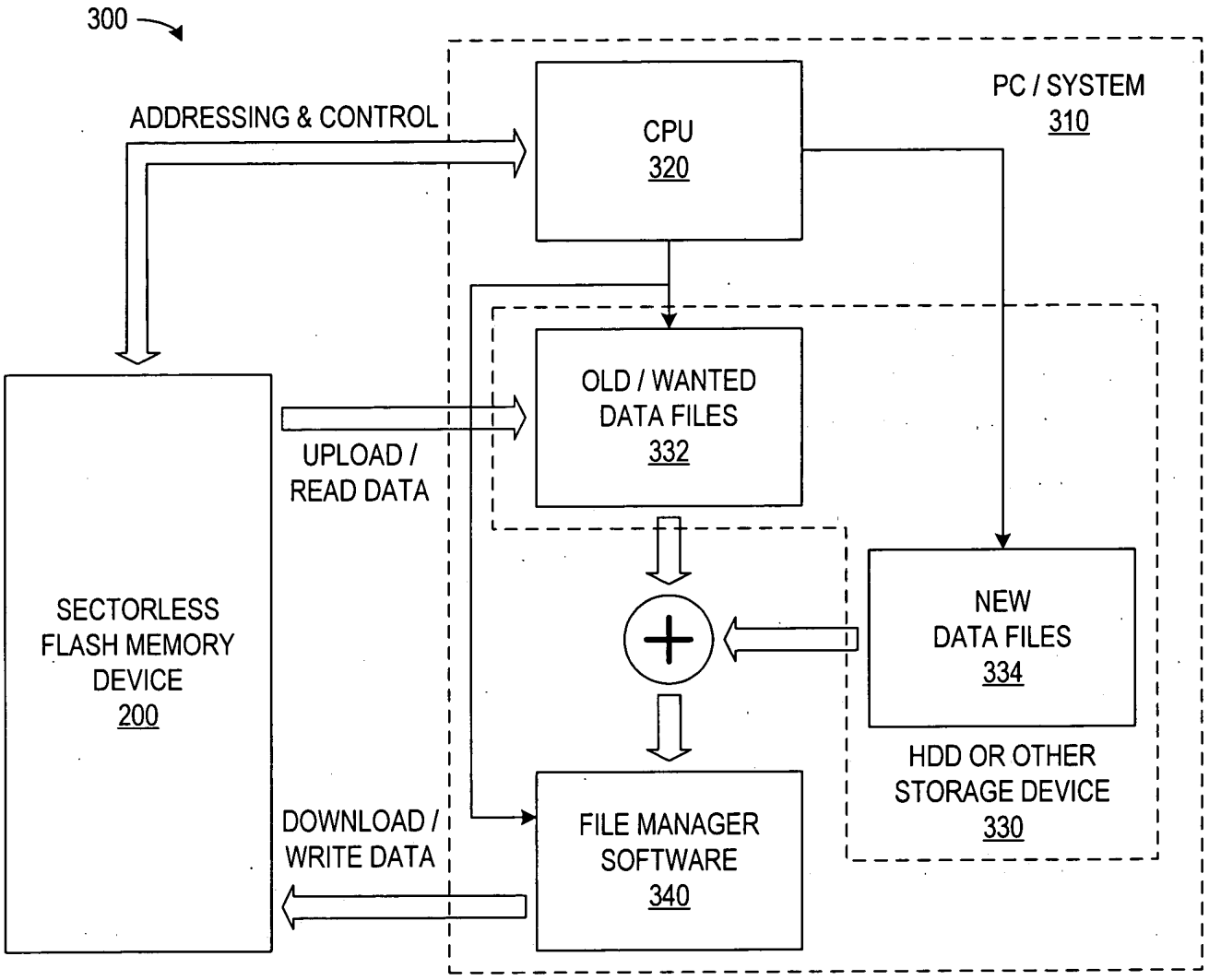
300
ADDRESSING & CONTROL
CPU
320
PC / SYSTEM
310
OLD / WANTED
DATA FILES
332
UPLOAD /
READ DATA
SECTORLESS
FLASH MEMORY
DEVICE
200
NEW
DATA FILES
334
HDD OR OTHER
STORAGE DEVICE
330
DOWNLOAD /
WRITE DATA
FILE MANAGER
SOFTWARE
340

FIG. 3

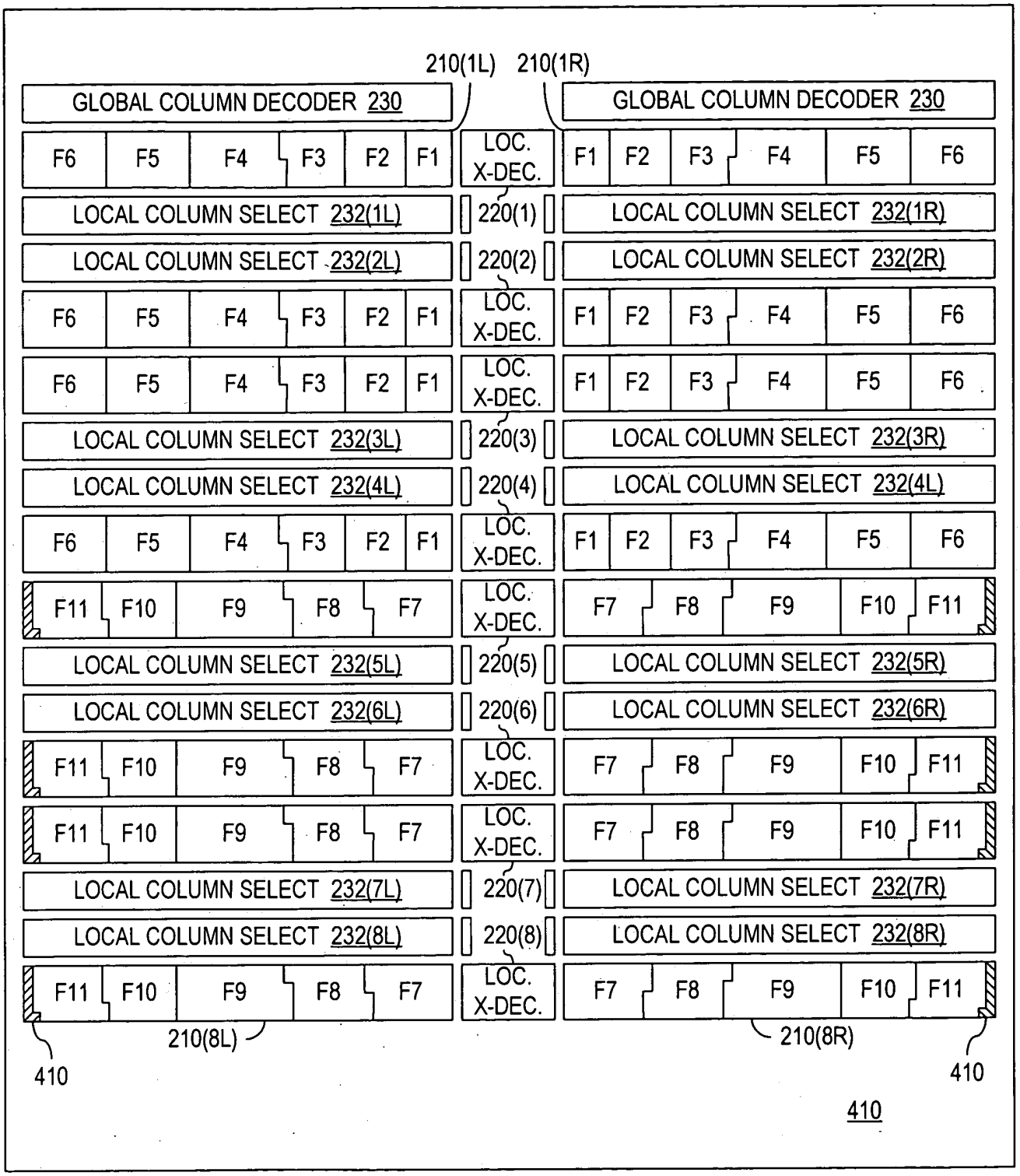
210(1L)
210(1R)
GLOBAL COLUMN DECODER 230
GLOBAL COLUMN DECODER 230
F6 F5 F4 F3 F2 F1
LOC. X-DEC.
F1 F2 F3 F4 F5 F6
LOCAL COLUMN SELECT 232(1L)
220(1)
LOCAL COLUMN SELECT 232(1R)
LOCAL COLUMN SELECT 232(2L)
220(2)
LOCAL COLUMN SELECT 232(2R)
LOCAL COLUMN SELECT 232(3L)
220(3)
LOCAL COLUMN SELECT 232(3R)
LOCAL COLUMN SELECT 232(4L)
220(4)
LOCAL COLUMN SELECT 232(4L)
F11 F10 F9 F8 F7
F7 F8 F9 F10 F11
LOCAL COLUMN SELECT 232(5L)
220(5)
LOCAL COLUMN SELECT 232(5R)
LOCAL COLUMN SELECT 232(6L)
220(6)
LOCAL COLUMN SELECT 232(6R)
LOCAL COLUMN SELECT 232(7L)
220(7)
LOCAL COLUMN SELECT 232(7R)
LOCAL COLUMN SELECT 232(8L)
220(8)
LOCAL COLUMN SELECT 232(8R)
210(8L)
210(8R)
410
410
410

FIG. 4

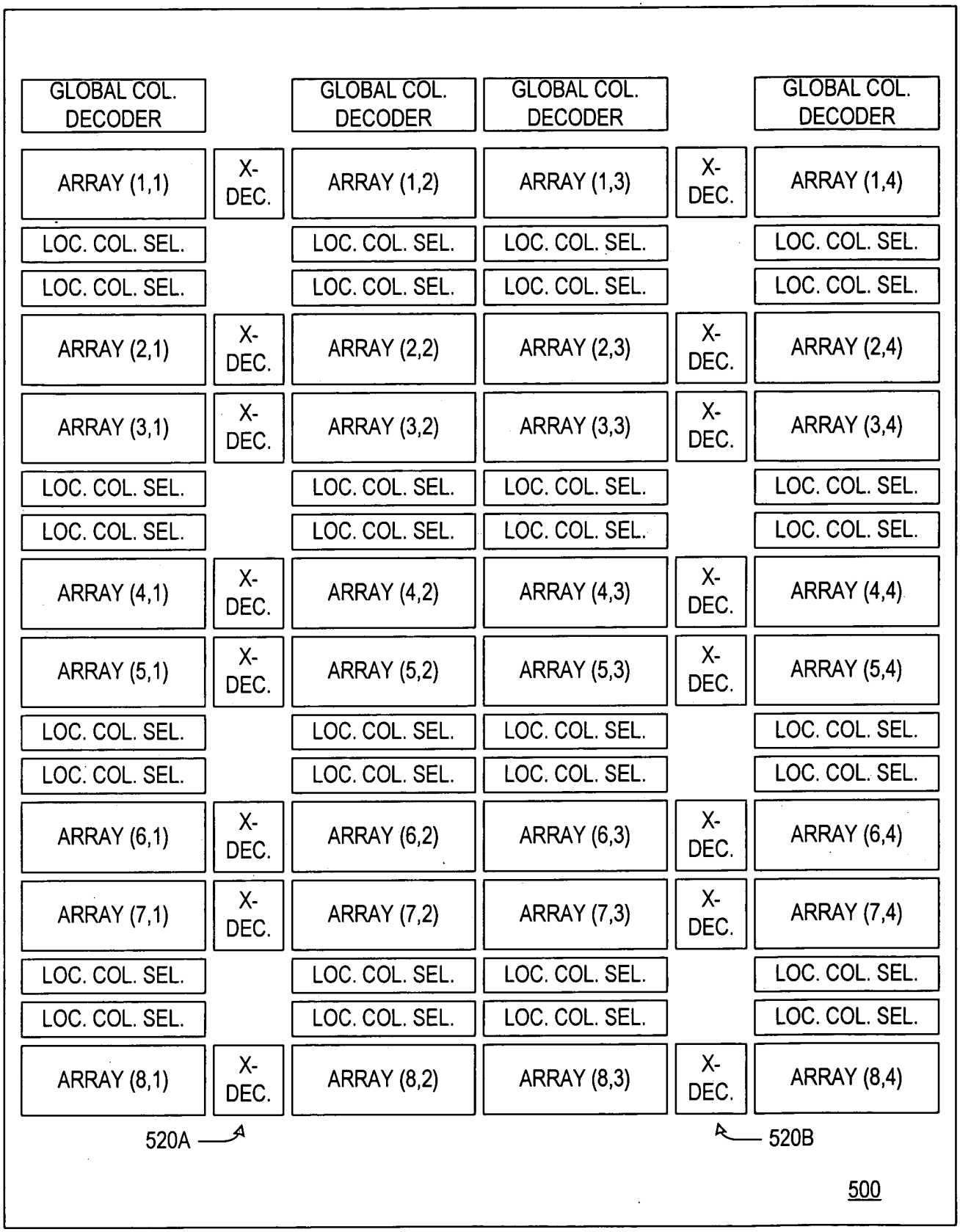
GLOBAL COL. DECODER
GLOBAL COL. DECODER
GLOBAL COL. DECODER
GLOBAL COL. DECODER
ARRAY (1,1)
X-DEC.
ARRAY (1,2)
ARRAY (1,3)
X-DEC.
ARRAY (1,4)
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
ARRAY (2,1)
X-DEC.
ARRAY (2,2)
ARRAY (2,3)
X-DEC.
ARRAY (2,4)
ARRAY (3,1)
X-DEC.
ARRAY (3,2)
ARRAY (3,3)
X-DEC.
ARRAY (3,4)
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
ARRAY (4,1)
X-DEC.
ARRAY (4,2)
ARRAY (4,3)
X-DEC.
ARRAY (4,4)
ARRAY (5,1)
X-DEC.
ARRAY (5,2)
ARRAY (5,3)
X-DEC.
ARRAY (5,4)
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
ARRAY (6,1)
X-DEC.
ARRAY (6,2)
ARRAY (6,3)
X-DEC.
ARRAY (6,4)
ARRAY (7,1)
X-DEC.
ARRAY (7,2)
ARRAY (7,3)
X-DEC.
ARRAY (7,4)
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
LOC. COL. SEL.
ARRAY (8,1)
X-DEC.
ARRAY (8,2)
ARRAY (8,3)
X-DEC.
ARRAY (8,4)
520A
520B
500

FIG. 5